

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Please amend the claims as shown.

1. (Withdrawn) A multiplex communication method comprising:

determining a transmitting node obtaining a transmission right based on a token circulated among said plurality of nodes;

transmitting data by specifying another specific node as a transmission destination from the node obtaining said data transmission right;

receiving the data transmitted from the node obtaining said data transmission right; and

storing said received data in a storage area corresponding to said node of the data transmission originator within a plurality of storage areas,

wherein each of said plurality of nodes having a storage unit including said plurality of storage areas for each storing the data transmitted from the other plurality of nodes.

2. (Withdrawn) The method according to Claim 1, comprising:

correlating said plurality of said storage areas with Ids of said plurality of nodes including own node; and

using the said storage area corresponding to ID of own node as a storage area of data to be transmitted from itself.

3. (Withdrawn) The method according to Claim 2, further comprising transmitting data to the others nodes, said node receiving token automatically transmitting data every time in receiving the token by selecting each one of a first transmission mode of transmitting data to the other nodes using said storage unit or a second transmission mode of transmitting data to the other nodes without using said storage unit.

4. (Withdrawn) The method according to Claim 1, further comprising:
assigning IDs to said plurality of nodes according to a predetermined order;
indicating a node assigned to the last of the order that said node have the last of the order; and
setting the destination to which the token is passed at the head of the order in the indicated node in said indicating step and

setting the destination to which said token is to be passed at ID of the node adjoining to the node assigned to itself on said order in not indicated node in said indicating step.

5. (Withdrawn) The method according to Claim 1, wherein said storing step including storing temporarily data to the temporary buffer before to said storage area corresponding to said transmitting node.

6. (Withdrawn) The method according to Claim 5, further comprising:
judging whether or not there is an error in the data stored in said temporary buffer based on an error check code; and
transferring the receiving data to said corresponding storage when there is no error in said judging step.

7. (Withdrawn) The method according to Claim 6, further comprising acknowledging an error by not returning ACK to a transmission originating when it is detected that there is the error in the node specified as the transmission destination.

8. (Withdrawn) The method according to Claim 1, further comprising notifying a data receiving acknowledge message to said transmission originating by only node specified as the transmission destination.

9. (Withdrawn) A multiplex communication method comprising:

- determining a transmitting node obtaining a
- transmission right based on a token circulated among said plurality of nodes;
- transmitting data by specifying another specific node as a transmission destination

from the node obtaining said data transmission right;

- adding an error check code to a transmission data;
- checking the receiving data based on said error checking code;
- coding the transmission data in CMI;
- transmitting the data coded in CMI; and
- decoding the transmitted data at a node receiving the data.

10. (Withdrawn) A multiplex communication method comprising:

- determining a transmitting node obtaining a
- transmission right based on a token circulated among said plurality of nodes;
- transmitting data by specifying another specific node as a transmission destination

from the node obtaining said data transmission right;

- acknowledging the token passing by the node to which said token is passed; and

passing the token by a predetermined number of times by the token passing originating when there is no acknowledgment of passing.

11. (Currently Amended) A multiplex communication method comprising:

determining a transmitting node obtaining a data transmission right based on a token circulated among a plurality of nodes;

transmitting data by specifying another specific node as a transmission destination from the node obtaining said data transmission right;

obtaining clock information by ~~[[a]]~~ the node having said data transmission right;

and

adding the obtained clock information to ~~[[a]]~~ the data to be transmitted.

12. (Original) The method according to claim 11, further comprising selecting each of a first mode of transmitting by adding clock information or a second mode of not adding clock information.

13. (Currently Amended) The method according to claim 11, further comprising:

determining a clock master for providing a reference clock information in advance among said plurality of nodes;

transmitting data including the clock information by said clock master;

receiving the clock information within the data transmitted from said clock master by ~~the~~ nodes other than said clock master; and

adjusting an internal clock according to the reference clock information indicated by the received clock information.

14. (Withdrawn) The method according to claim 1, further comprising:

inputting data to be transmitted to the other nodes from the outside in each of said plurality of nodes; and

writing the data to be inputted by dividing into a plurality of times, wherein data being rewritten is not transmitted when data is transmitted during the plurality of times of writing.

15. (Withdrawn) A multiplex communication method comprising:

determining a transmission right based on a token circulated among said plurality of nodes;

transmitting data by specifying another specific node as a transmission destination from the node obtaining said data transmission right;

transmitting the same data twice from the node obtaining said data transmission right;

comparing the data transmitted whether said data coincide in the receiving node; and

receiving one of said data transmitted twice as receiving data only when said data coincide.

16. (Withdrawn) The method according to claim 1, wherein said node is an electronic control unit for controlling a predetermined mechanism of a vehicle.

17. (Withdrawn) The method according to claim 16, wherein a communication protocol having no priority is used in the communication between the nodes.

18. (Withdrawn) A multiplex communication device comprising:

transmitting means for transmitting data by specifying another specific node as a transmission destination from a node having a transmission right determined by a token circulated among a plurality of nodes;

storage means having a plurality of storage areas for storing data transmitted by the other nodes, respectively;

receiving means for receiving the data transmitted by the other node regardless of the transmission destination; and

controlling means for storing said received data in a storage area corresponding to the data transmission originating node among said plurality of storage areas.

19. (Withdrawn) The multiplex communication device according to Claim 18, wherein said node is an electronic control unit for controlling a predetermined mechanism of a vehicle.

20. (Withdrawn) The multiplex communication device according to Claim 19, wherein a communication protocol having no priority is used in the communication between the nodes.

21. (Withdrawn) A multiplex communication system comprising:

a plurality nodes;

a token circulated among said plurality of nodes;

transmitting means for transmitting data to specifying another specific node as a transmission destination from a node having a transmission right determined by said token;

a storage unit having a plurality of storage areas for storing data transmitted by the other plurality of nodes, respectively,

wherein the node specified as the transmission destination and each node not specified as the transmission destination comprise: a receiving unit receiving the data transmitted by the node which has obtained the data transmission right; and

a storing unit storing said received data in a storage area corresponding to the data transmission originating node among said plurality of storage areas.

22. (Withdrawn) The multiplex communication system according to Claim 21, wherein said node is an electronic control unit for controlling a predetermined mechanism of a vehicle.

23. (Withdrawn) The multiplex communication system according to Claim 22, wherein a communication protocol having no priority is used in the communication between the nodes.

24. (New) The method according to Claim 11, further comprising:

- determining a clock master for providing a reference clock information in advance among said plurality of nodes;
- transmitting data including the reference clock information by said clock master;
- receiving the reference clock information within the data transmitted from said clock master by nodes other than said clock master;
- comparing an internal clock information of an internal clock of the node that receives the reference clock information with the reference clock information;
- slightly advancing, slightly retarding or keeping the internal clock as is, when a difference between the internal clock information and the reference clock information falls within a certain allowance; and

updating the internal clock information to the reference clock information, when the difference between the internal clock information and the reference clock information does not fall within the allowance.

25. (New) A multiplex communication method comprising:

circulating a first token among a plurality of nodes;

determining a first transmitting node obtaining a data transmission right based on said first token circulated among said plurality of nodes;

transmitting data from said first transmitting node by specifying a second transmitting node as a transmission destination from said first transmitting node obtaining said data transmission right;

obtaining clock information by the node having data transmission right;

adding the obtained clock information to the data to be transmitted;

determining a clock master for providing a reference clock information in advance among said plurality of nodes;

transmitting data including the reference clock information by said clock master;

receiving the reference clock information within the data transmitted from said clock master by nodes other than said clock master;

comparing an internal clock information of an internal clock of a node that receives the reference clock information with the reference clock information;

advancing, retarding or maintaining the internal clock as is, when a difference between the internal clock information and the reference clock information falls within a certain allowance; and

updating the internal clock information to the reference clock information, when the difference between the internal clock information and the reference clock information does not fall within said certain allowance.